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Developing More Adaptable Individuals and Institutions

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SUMMARY

In June 2004, the Office of the Deputy Under Secretary of Defense (Readiness) tasked the Institute for Defense Analyses (IDA) to conduct research that would assist it in developing a training and exercise environment that would prepare U.S. forces to respond to asymmetric threats. IDA reported its findings in August 2005. In the report, IDA concluded that asymmetric threats were only one aspect of the current and future operating environments and that the chief characteristic was unpredictability. The report went on to make the case that, given the uncertainty of current and future threats, the key skill or attribute that individuals, units, and teams of commanders and leaders needed to improve was adaptability. IDA described, in very specific terms, adaptability as a metaskill, or meta-competency that requires the integration of both cognitive and relational skills. The study also explored the requirements for learning to be adaptable and suggested that an effective adaptability training strategy would involve training interventions at every level of an individual's career and for every size and type of organization—small through large and joint, interagency, and multi-national.

Subsequently, IDA was tasked to support the Office of the Deputy Under Secretary of Defense (Readiness) in developing an adaptability training strategy and related proof of concept experiment and to suggest revisions to current training policy in order to implement such a strategy. That task is nearing completion.

To date, the IDA studies have focused on training to achieve greater adaptability of individuals, commander/leader teams, and units. However, efforts to identify an adaptability training strategy and policy initiatives to support adaptability training have led to more fundamental findings. These findings strongly suggest that developing the meta-competency of adaptability requires attention to more than just training. The implications of these finding provide both challenges and opportunities for DoD.

The first finding concerns the current and future operating environments that must inform and shape the development of U.S. military forces. As noted above, the initial IDA report identified the chief characteristic of those environments as unpredictability.

John Tillson, et al., *Learning to Adapt to Asymmetric Threats*, IDA Document D-3114, Institute for Defense Analyses, August 2005.

Further study has led to a more comprehensive description of the operating environment. According to the *Capstone Concept for Joint Operations*: "The future operating environment will be characterized by uncertainty, complexity, rapid change, and persistent conflict." Uncertainty corresponds to unpredictability, but complexity and rapid change must also be taken into account in the preparation of military personnel.

The second finding is that adaptability, as appropriately defined, remains the key competency or attribute necessary to deal not only with uncertainty, but also with complexity and rapid change. As a corollary, it must be recognized that adaptability refers to an ongoing process, not the means to a specific end state. To stop adapting is to stop being adaptable.

The third finding is that while leaders often speak of adaptability, there has not been widespread buy-in to the idea that adaptability needs to be developed in an intentional manner. In fact, developing adaptability is hindered by certain aspects of organizational culture and by specific barriers as diverse as human nature and Congressional legislation.

The fourth and most important finding—and the central subject of this paper—is that adaptability is developed not only through training, but also through education and experience. In fact of the three, and because of the relative amount of time devoted to each, training may be the least influential contributor to developing adaptability skills.

Based on these expanded findings, this paper emphasizes the need to increase adaptability at all levels of the military and suggests that a holistic and integrated approach involving training, education, and career development is the key to producing more adaptable individuals and, through them, more adaptable organizations and institutions that will foster and sustain adaptability as a valued meta-competency. The paper further suggests that OSD and the Joint Staff are best positioned to facilitate such a holistic approach and to serve as the catalyst for a collaborative effort on the part of senior Service leaders. Finally, the paper suggests initial areas to be considered in a strategy to develop adaptability.

Military and civilian leaders across DoD regularly state that the strength of the military lies in its people. The power of those people is enhanced by investing in their development. DoD can significantly strengthen its most potent capability by developing individuals, commander/leader teams, and units that are far better prepared to respond

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Capstone Concept for Joint Operations (CCJO), v3.0 (Washington: Department of Defense, 15 Jan 09), p. 2.

effectively to the unpredictable challenges and pace of change in the current and future operating environments. A return on investment will be realized in the near term at the tactical and operational level, but the ultimate payoff will be in strategies and force structures that meet the demands of the future operating environment—strategies and force structures created by senior leaders who have developed a high level of adaptability over the course of their careers.

A. INTRODUCTION

What does it take to develop military personnel ready to meet the challenges of the 21st century? It is widely recognized that many of these challenges are substantively different from those the military confronted in the 20th century. Yet the 20th century did introduce precursors to some of today's conflicts, which provide useful lessons. Prime examples are the Vietnam War and wars fought by colonial powers in areas of the world where we are now engaged or have national security interests. But while the military prepares for current and future operations by studying history and incorporating lessons learned, it must recognize that each new situation is unique and that analogous cases may not provide sufficient insight into current or future challenges. Afghanistan is neither Vietnam nor Iraq. Looking more broadly at the question of how to deal with new and unique challenges, researchers Rose A. Mueller-Hanson, Johnathan K. Nelson, and Erin Swartout suggest that, "[w]hen faced with changes, it may not be sufficient to rely on past experiences to develop an appropriate response. Rather, one must develop a more general strategy or approach for handling novel situations." Developing the metacompetency of adaptability and explicit strategies for adapting to unknown future challenges will help avoid the dangers of being stuck in the familiar past.

Looking at potential conflicts in linear terms with reductionist thinking worked when enemies "cooperated" and provided a linear and, in many ways, symmetrical threat. However, current and future threats are likely to be extremely asymmetrical and marked by uncertainty, complexity, and ambiguity. Attempting to prevent or to prepare for and prosecute conflicts in traditional ways in such an environment will invite failure. "One [cannot] make confident predictions about what strategies will be successful in the future... [and] one [cannot] make strategic commitments that will result in sustainable competitive advantage—all competitive advantages are temporary, rare, and short-lived." Therefore, our military must recognize the future operational environment for what it is—a conglomeration of complex systems that interact with each other. And leaders must prepare to respond adaptively, with "new attitudes, mindsets, and

Rose A. Mueller-Hanson, Johnathan K. Nelson, and Erin Swartout, *Proof of Concept Research For Developing Adaptive Performance: Task 2 Report, Validation Plan*, PDRI, Arlington, VA, July 2009, p 13.

Mink Spaans, Maartje Spoelstra, Erik Douze, Reinout Pieneman, Anne-Marie Grisogono, *Learning to be Adaptive*, 14th International Command and Control Research and Technology Symposium (ICCRTS), C2 and Agility, Washington, DC, June 15-17, 2009, p. 10.

behaviors,"³ to a thinking and learning opposition that poses threats that are not susceptible to solutions characterized by a single and direct approach and reliance on a large military and robust logistical base. "More" is no more a strategy than is "hope."

Preventing or successfully waging war in the new century will require preparing military people in ways that are different from the way they have been prepared in the past. Significant changes will be needed in education and training, in career assignments, in the way people are rewarded and promoted, and in approaches to leadership. These changes will be needed in order to develop adaptable individuals, units, and institutions capable of confronting the adaptive enemies of today and anticipating the changing operational environment and the adaptive would-be opponents of the future.

B. PROPOSITION

Adaptive performance depends on three factors:

- Individual differences (personality, cognitive ability, experience),
- Knowledge, skills and attitudes gained through education, training, and experience, and
- An environment that calls for and/or permits adaptive performance.⁴

To implement and sustain the policies and practices necessary to develop adaptability will require strong leadership, with adequate resources and authority, and will necessitate the cooperative effort of senior leaders with diverse responsibilities. Therefore, we suggest that the Service Secretaries are in the best position to lead such an effort. At the same time, the Services can benefit from a cooperative effort that leads to a shared understanding of adaptability, avoids duplication of effort in designing strategies for developing adaptability, and makes the best use of scarce resources in implementing whatever strategies are developed. Thus, we also suggest that OSD, at the level of the Under Secretary of Defense (Personnel and Readiness), and the Joint Staff (J1 and J7), with responsibility for joint personnel issues, education, and training, would be well positioned to facilitate the initial cooperative efforts of the Services to explore adaptability development throughout DoD.

OSD has previously supported research to validate the proposition that individuals and small units can be trained to be more adaptive than they otherwise would be.⁵ But

Rose A. Mueller-Hanson, et al., p. 21.

⁴ Rose A. Mueller-Hanson, et al., pp. 5-7.

because adaptability is a function not just of training, but of individual aptitude, training and education, experience, and cultural and organizational environment, the Service Secretaries are in the best position to take the lead in crafting an integrated and coherent approach to developing more adaptive leaders within their respective Services and, through those leaders, more adaptive institutions. Such a holistic approach will involve addressing, among other policies, those dealing with manpower, personnel, education, and training. The leadership's approach to developing increased adaptability across DoD should include four main elements.

First, the Under Secretary of Defense (Personnel and Readiness) (USD (P&R)), in cooperation with the Joint Staff (J1 and J7), should convene a DoD-wide (Services, Joint Staff, and DoD agencies) senior leadership forum to explore the development of adaptability as an essential military capability within DoD. This initial forum should concentrate on two goals. First, the members of the forum should, with the assistance of subject matter experts, seek agreement on a clear definition of adaptability and identify the skills and capabilities that characterize adaptable performance at various organizational levels and within specific venues. Adaptable performance will require different combinations of skills and emphasize different capabilities depending on whether one is talking about junior or senior leaders, tactical or strategic issues, or the operational environment of Afghanistan or Washington, D.C.

Research to date has shown that, while academics have developed precise definitions of adaptability, many popular notions of adaptability are fairly limited, poorly articulated, and often lead to a belief that current practices already produce sufficient adaptability in both individuals and U.S. military organizations. It should be noted that the assertion is not that individuals and organizations are not adaptable, but rather that they have the potential to become much more adaptable than they otherwise would be. History is replete with examples of the military adapting, but slowly and at great cost. The Services and all of DoD will benefit from a clear and comprehensive definition, accompanied by examples of the skills and capabilities required in a variety of generic situations. A consensus definition articulated at a senior leadership forum will highlight the need for greater adaptability and provide a firm foundation for efforts to increase adaptability. The forum should also attempt to lay out a framework for developing initial plans of action and milestones (POA&M) for adaptability development initiatives, with

William R. Burns, Jr. and Waldo Freeman, *Developing an Adaptability Training Strategy and Policy for the DoD* (Interim Report), IDA Paper P-4358, Institute for Defense Analyses, October 2008.

the goal of having the Services, Joint Staff, and DoD agencies develop their unique strategies and POA&Ms over the ensuing six months.

Second, the Services, the Joint Staff, and DoD agencies should each establish an adaptability development task force with appropriate senior leadership. John P. Kotter, in his book *Leading Change*, emphasizes the importance of creating a sufficiently powerful guiding coalition, when seeking to bring about significant change. He makes the case that individuals alone never have the assets to overcome tradition and inertia and that some individual leaders will never accept the need for change.⁶ Success will require the collaborative and dedicated effort of people who see the long-term value of increasing individual and organizational adaptability. Each Joint, Service, and agency task force should produce an adaptability development strategy and associated POA&M, including identification of the resources required to execute the strategy.

Third, the USD (P&R) should establish a defined and enduring leadership group, composed of senior Joint, Service, and agency leaders, to facilitate the creation and resourcing of the policies, organizational structures, and procedures necessary to sustain a long-term commitment to making DoD and its people increasingly more adaptable. The chair of this leadership group should be the Under Secretary of Defense (Personnel and Readiness), supported by a program executive officer to track and coordinate initiatives of the group. The leadership group should seek to achieve synergy and economies in the adaptability development strategies of the Joint Staff, Services, and DoD agencies. An important function of the leadership group should be to insure that programs designed to develop and enhance adaptability are adequately resourced on a continuing basis. All leaders in the effort will need to recognize that becoming more adaptable is an evolutionary process and finding better ways to develop adaptability will also be evolutionary. Similarly, the process of becoming adaptable is never-ending and the requirement to adapt to change is ever present. Sustaining a commitment to developing adaptable leaders and adaptable institutions will certainly be far less costly than developing a modern weapons system, but the long-term return will likely be far greater.

⁶ John P. Kotter, *Leading Change* (Boston: Harvard Business School Press, 1996).

Interestingly, the Australian Army has already made just such a commitment. See *Adaptive Campaigning: the Land Force Response to Complex Warfighting*, Future Land Warfare Branch, Australian Army Headquarters, Canberra, December, 2007.

As a former Commandant of the Army War College recently wrote, "The greatest failures in our current wars have been human and intellectual not technological."

Finally, the leadership group created by the USD (P&R) should, through one or more task forces, seek to identify areas where potential policy and institutional changes will contribute the most to developing adaptability. Without attempting to define the scope of such changes, one can perceive that the strategies for developing adaptability will need to consider legislation, policies, and practices that affect education, training, leadership development, assignments, manpower distribution, promotions, and other incentives. Examples of specific areas to be reviewed with respect to their effect on the development of adaptability skills include:

- The Defense Officer Personnel Management Act (DOPMA),
- the Goldwater-Nichols Department of Defense Reorganization Act of 1986,
- existing education and training strategies,
- policies affecting curriculum and graduation requirements at the Service academies and ROTC units,
- curriculum and requirements for attending the war colleges,
- graduate education programs,
- utilization of graduate education,
- the relationship between types of assignments and promotion opportunity,
- selection board precepts,
- basic professional training,
- professional qualification processes,
- the delivery and utilization of language training,
- the employment and utilization of training and education experts,
- research with regard to the science of learning,
- the use of technology in education and training,

Robert H. Scales, "Scales response to Ricks Washington Post article," 22 April 2009. http://talk.collegeconfidential.com/service-academy-parents/703211-jack-wheeler-usma-66-response-washington-post-editorial.html

- the methodology employed in personnel evaluations,
- unit structure and organization, and
- budgeting resources for training and education.

While each part of DoD has its own unique requirements and culture, there are common institutional issues that can affect the development of more adaptable individuals, units, and teams. Reviewing these issues with an eye toward enhancing or changing current practices and policies would be consistent with an understanding that organizational adaptability depends on the collective adaptability of individuals, while individual adaptability is fostered by organizations and institutions broadly committed to becoming more adaptable and to developing more adaptable individuals, units, and teams.

C. PROBLEM

The current operational environment demands a military that is educated and trained to be adaptable. The new commander in Afghanistan was recently quoted as saying:

The education of our forces is the best weapon we have. Counterinsurgency is complex, nuanced, and ever-changing, and success is dependent on a fighting force that can recognize these changes and adapt to them.⁹

And the requirements for adaptability go far beyond the demands of counterinsurgency. Admiral Mike Mullen, writing in his foreword to the *Capstone Concept for Joint Operations*, states:

The *Capstone Concept for Joint Operations* describes how the joint force will operate in an uncertain, complex, and changing future characterized by persistent conflict...To succeed, we need adaptive and thinking professionals who understand the capabilities their Service brings to joint operations and how to apply those capabilities in a flexible manner.¹⁰

The document goes on to note that "the institutional implications of adopting the concept include Develop[ing] innovative and adaptive leaders down to the lowest levels... [and] Improv[ing] Service and institutional adaptability to deal with rapid change.¹¹

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Thom Shanker quoting Gen. Stanley A. McChrystal, "New Army Handbook Teaches Afghanistan Lessons," *New York Times*, August 13, 2009.

Department of Defense, Capstone Concept for Joint Operations, Version 3.0, 15 January 2009, pp. iv-v.

¹¹ Ibid., p. 28.

Few people would disagree with the thesis that adaptive leaders and institutional adaptability are necessary elements of a strong military. What is missing, however, is a consensus on what it means to be adaptive and an understanding and articulation of exactly how to develop adaptive leaders and institutions. The problem, then, is twofold and can be stated as: What, precisely, does it mean to be adaptable; and how does the military produce more adaptable leaders, units, and teams of leaders and commanders at every level, as well as develop the adaptable institutions necessary to foster and sustain adaptability throughout the military?¹²

D. DEFINING ADAPTABILITY

One need not begin with a clean slate when defining adaptability. Previous studies within both the academic and military communities have developed viable models of adaptability. Many of these studies reflect a remarkable degree of agreement among experts with regard to the dimensions and component skills, cognitive and relational, that are associated with adaptable performance. Thus, it is particularly ironic that while leaders at the highest levels call for adaptability and experts have broad agreement on what constitutes adaptability, very little has actually been done to develop adaptability within the military. This irony indicates that an essential first step in developing a more adaptable military will be to produce a specific working definition of adaptability that resonates with leaders across DoD who have called for adaptability, but only in general terms. Defining adaptability and illustrating what constitutes adaptable performance in a

¹² While this paper derives from and is focused on efforts to develop more adaptable military individuals, teams, and units, the ideas espoused have equal applicability to the civilian members of DoD. DoD success depends on the day-to-day teamwork of its uniformed and civilian personnel. To be successful in adapting to the changing operational environment, the two groups need to be prepared to work together to provide effective responses. In fact, the ability of individuals in the two groups to work together should be considered one aspect of adaptability and merits specific attention. Thus, where it is proposed that OSD and the Service Secretaries adopt strategies for developing adaptability, it should be understood that those strategies should include adaptability development for civilians in leadership and managerial roles in the respective departments.

¹³ See for example: John Tillson, et al., Learning to Adapt to Asymmetric Threats, IDA Document D-3114, Institute for Defense Analyses, August 2005. William R. Burns, Jr. and Waldo Freeman, Developing an Adaptability Training Strategy and Policy for the DoD (Interim Report), IDA Paper P-4358, Institute for Defense Analyses, October 2008; David Dorsey, Rose-Mueller Hanson, Elaine Pulakos, Adaptability and Adaptive Performance: Current Findings and Future Directions for Building Adaptive Forces, Personnel Decisions Research Institutes, Inc., 15 July 2006; Jennifer S. Tucker, Katie M. Gunther, Robert J Pleban, Gregory A. Goodwin, Adam W. Vaughan, The Application of a Model of Adaptive Performance to Army Leader Behaviors, U.S. Army Research Institute for the Behavioral Sciences, Research Report 1870, May 2007.

variety of venues will provide both a guide to adaptability development initiatives and a benchmark against which developmental outcomes may be measured.

E. FOR WHOM IS THE META-SKILL OF ADAPTABILITY INTENDED?

Given the uncertainty, complexity, and often rapid change of threats into the foreseeable future, the key skill that individuals, units, and teams of commanders and leaders need to learn is adaptability. As a practical matter, however, adaptability development should take into account limited resources and the fact that not every individual and unit would benefit equally from such an effort. Whether some jobs do not require adaptability or simply have lesser demands for adaptability than many others, the greatest benefit to the military will result from concentrating adaptability training efforts on those with the greatest potential need for adaptability and its component skills.

Much of the recent literature on adaptability has resulted from the experiences of young military leaders in Iraq and Afghanistan. Their lives, the lives of their subordinates, and the success of their missions have often depended on their ability to adapt to a type of warfare, a cultural environment, and a range of missions for which their training has not explicitly prepared them. Many of these young people have proven that they can and will adapt, but the time required to adapt has often proven to be very costly. At the same time, the most senior leaders in the military have needed to adapt to a strategic environment much different than the one that characterized their formative years. Some argue today that our leadership has been slow to adapt in both Operation Iraqi Freedom and Operation Enduring Freedom. The degree of adaptability among senior officers has significant implications in terms of operational and strategic planning and the associated development of force structure. Hence, both junior and senior leaders would benefit from a strategy that enhances their adaptability skills.

While personnel at every level can benefit from adaptability skills, there are many military personnel whose success depends, in large measure, not on adaptability, but rather on their disciplined adherence to specific processes. Examples include airmen assigned to repair jet engines, sailors responsible for operating nuclear reactors, and members of explosive ordnance disposal (EOD) teams responsible for defusing improvised explosive devices (IEDs).

However, even within groups where their immediate work is not characterized by a need for adaptability, there may be benefits from developing adaptability. An EOD technician, who disarms ordnance using a well-rehearsed methodology, may find it of critical importance to be able to adapt to changes in IED technology and use. Junior naval officers responsible for the operation and maintenance of nuclear propulsion plants in strict accordance with detailed written procedures can hope to go on to command ships and naval strike groups and to take on the full range of responsibilities of flag officers. The transition from the reactor plant and working with a group of individuals who are all products of the Navy's nuclear power training program to the world of Navy, joint, and combined operations will require considerable adaptability. In the past, not all have been prepared to make that transition.

Therefore, it is important to look at the development of adaptability through training, education, and career development both in terms of individual jobs as well as the likely career progression. Certainly, most senior leaders require all of the skills associated with the meta-skill of adaptability. So establishing a foundation for the meta-skill of adaptability may be an important factor in the professional development of individuals who do not have an immediate need for it. Also, whereas the meta-skill of adaptability itself may not be essential to a particular job, components of adaptability are important in every job. Generally recognized adaptability skills such as critical thinking, self-awareness, and various social skills have universal applicability. Developing and using those component skills will also be of great value in preparing for later jobs where the meta-skill itself is required. Thus, one component of early efforts to identify training, education, and personnel policy initiatives that develop adaptability should be a careful analysis of job requirements, including where those jobs fit in a lengthy career pattern.

F. ORGANIZATIONAL CULTURE AND ENVIRONMENT AND THE DIFFERENT DIMENSIONS OF ADAPTABILITY

Adaptive performance occurs in an environmental context, which can constrain or facilitate individual adaptive performance with rules, norms, and even physical characteristics that make it more or less likely that an individual can perform in an adaptive manner—Proof of Concept Research For Developing Adaptive Performance: Task 2 Report, Validation Plan¹⁴

As noted by a number of observers and discussed briefly above, many relatively junior leaders in the field in Iraq and Afghanistan have demonstrated considerable adaptability. This has been at the tactical level and in a very uneven manner, based on the initiative of individual leaders. On the other hand, as Major Paul Yingling argued in a recent talk at the US Army Command and General Staff College: "The institutional

Rose A. Mueller-Hanson, et al., p. 5.

military, responsible for organizing, training and equipping the Armed Forces, has proven far less adaptive."¹⁵ In his view, the leadership operates under powerful incentives to procure expensive, high-tech weapons that are not the weapons needed and to defend force structures that do not meet real requirements. His explanation is that "...military officers operate under powerful incentives to conform to senior officers' views, even if those views are out of touch with battlefield realities. Unlike combat forces, the institutional military operates under an incentive system that rewards conformity and discourages adaptation."¹⁶ Major Yingling's views are not unique, and illustrate important widely held perceptions.

Just as culture and environment affects the Army, they have similar effects on the other Services. Both the Sea Services and the Air Force have struggled to identify their appropriate roles in Iraq and Afghanistan and in the broader effort to defeat terrorist elements. Similarly, they have struggled to articulate comprehensive strategies that reflect both current and anticipated future operating environments and to design relevant force structures. The firing of the Air Force Secretary and Chief of Staff, while attributed to deficiencies in the nuclear weapons program, may also be perceived to have been a result of their inability to adapt to the demands of the current operational environment. In short, Service cultures have not fostered adaptability and adaptive performance.

Related to culture and environment is the multi-dimensional aspect of adaptability.

Change may occur at different levels of analysis, across different time horizons, and across varying levels of complexity. Different levels of analysis include individual contributors, individual leaders, teams, units, and organizations. Different time horizons range on a continuum of immediate changes (as in automatic responses to crisis situations) through the changes that occur over the entire lifespan of an organization.¹⁷

Different levels also include tactical, operational, and strategic. Ensuring that the military has people prepared to respond effectively in all dimensions will require a disciplined and sustained effort.

The overarching point to be made here is that adaptable leadership in numerous venues at all levels is crucial to military success, and the development of adaptability and

¹⁵ Paul Yingling, "Irregular Warfare and Adaptive Leadership," *Small Wars Journal*, 2009.

¹⁶ Ibid.

¹⁷ Rose A. Mueller-Hanson, et al., p. 4.

its component skills should take into account the multi-dimensional aspects of adaptability. At the tactical level, the ability to fire a rifle, fly an airplane, or drive a ship is fundamental to military readiness. An understanding of doctrine, coupled with training in military skills, creates the ability to execute the tactics, techniques, and procedures that allow the military to employ its weapons effectively. But what is critical and often decisive is the ability to adapt the use of those weapons and the employment of well-rehearsed tactics, techniques, and procedures to respond effectively to a thinking and adaptive enemy in an unpredictable operating environment. Similarly, at the institutional level, a culture that fosters the ability to recognize and respond to the longer term changes in the strategic environment is an essential prerequisite to providing vision, leadership, and resources in a timely manner to those operating at the tactical level.

G. SPECIFIC BARRIERS TO DEVELOPING ADAPTABILITY

There are real reasons why leaders call for adaptability, but little has been done to develop it. Some of the reasons have to do with human nature. Human beings resist change. Rather than acknowledge a changed situation and the fact that old processes are not effective in dealing with new challenges, people most often prefer to continue doing what they have always done and are comfortable doing, regardless of whether or not it is effective. They may be convinced that if they simply do what they have always done better, they will be more successful. Even the best and the brightest resist change. In his book, *Our Under Achieving Colleges*, Derek Bok, the former president of Harvard University, described the difficulty in getting faculty members to undertake the changes in teaching methods necessary to increase the critical thinking and communication skills of students.¹⁸

Another aspect of human nature that poses a barrier is resistance to hard work. Learning to adapt and becoming adaptable requires constant thinking, and thinking can be very hard work. But it is not simply a question of resisting hard work. People, quite naturally, compensate for human limitations: difficulty questioning one's own assumptions, difficulty breaking habits of thought, the temptation to foreclose options in order to achieve certainty, and simple impatience.¹⁹ Also people are very busy,

Derek Bok, Our Under Achieving Colleges: A Candid Look at How Much Students Learn and Why They Should be Learning More (Princeton, NJ: Princeton University Press, 2006).

Anne-Marie Grizogono, *The Science of Complex Adaptive Systems and Applications to Defense Systems and Operations*, Complex Adaptive Decision Making conference, Alexandria, VA, 18-19 June 2009.

particularly senior leaders. The effort required to change priorities and make the organizational adjustments necessary to foster greater adaptability simply appears to be beyond what time will allow, especially when there is no obvious immediate return on the investment.

Human nature is far from being the only problem. Legislation and policy, though designed with good intentions, often have unintended consequences that impact the development of adaptable individuals and institutions. Both DOPMA and Goldwater-Nichols, generally perceived to be positive initiatives, establish requirements and place restrictions on careers and career development opportunities that tend to discourage, if not inhibit, assignments with the potential to increase adaptability. There are also barriers of an academic or scientific nature. Because leaders speak of adaptability without providing a clear-cut definition of what the word means and what achieving it entails, they leave open the question of what skills and competencies need to be developed to make one more adaptable. And since it is widely recognized that there are insufficient metrics for measuring adaptability, it is extremely difficult to make the case that scarce training and education time should be focused on developing a capability that cannot be measured and reported in precise terms.

There are other barriers to developing adaptability, but a final one that deserves mention is the existing system of rewards for professional performance. Adaptive performance is characterized by the ability to deal with ambiguity and a willingness to take reasonable risk. Fitness and efficiency reports do not focus on these qualities, and people are rarely promoted because they exhibit these qualities. Likewise, adaptability is enhanced by a broad range of experiences that provide an individual with an appreciation for situations that require adaptation and what actions constitute an effective response to such situations. However, military promotions often reward those who have been constrained to a narrow career pattern, who have developed proficiency within a narrow scope of skills and competencies, and who, consequently, may be ill-prepared to adapt to rapidly changing requirements. In short, the barriers to developing adaptability are significant and must be fully acknowledged in any effort to promote and foster the development of more adaptable individuals and institutions.

H. WHY THE NEED FOR OSD LEADERSHIP?

While one can point to a number of ad hoc efforts to adapt to the specific challenges faced in Iraq and Afghanistan, there has been little movement of an overall

strategic nature within the Services to adapt traditional practices of training, education, professional assignments, and the building of force structures to the rapidly changing post-Cold War environment, despite the fact that a generation has elapsed since the Cold War ended. There have been concerted efforts in every area to develop and expand the use of technology. But that does not reflect adaptability—only a continuation of ongoing efforts to maintain a technological advantage and to realize the savings from reduced manpower requirements. While ultimately personnel education, training, and assignment policies and practices are the purview of the Service Secretaries, the Office of the Secretary of Defense is in the best position to initiate a DoD-wide effort aimed at developing the adaptable leadership that the military requires to be successful in confronting the ever more rapidly changing strategic and operational environment.

OSD, in cooperation with the Joint Staff, can act as a catalyst to develop adaptability by bringing together senior leaders from across the department. An enduring and committed leadership group, informed by the work of the leadership forum discussed above, would have the potential, collectively, to acknowledge that certain aspects of existing DoD organization and management practices have the unintended consequence of inhibiting, or at least not contributing to, the development of adaptability. A recent study of Navy education noted this problem in a related context:

There are a variety of organizational impediments to successfully implementing an education strategy. These policies have arisen over many years; they were put in place for good reasons and were not directed against or even designed to consider officer education. They have become barriers to the implementation of an education strategy and need to be addressed.²⁰

Education, training, career experience, and the cultural environment all contribute to developing adaptability. If those who are responsible for each factor are separated on the organization chart or are not in the habit of coordinating their efforts, then it is unlikely that an optimum outcome will be realized in terms of adaptable individuals and adaptable teams, units, and organizations. The net result will be a military that is less adaptable than it otherwise might be and less adaptable than is required to respond effectively to changing requirements in an unpredictable and complex environment. The combination of formal adaptability development strategies from the Joint Staff, Services, and DoD agencies and a supportive leadership group that includes representatives of the

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David M. Rodney, Christine H. Fox, Samuel D. Kleinman, Michael J. Moskowitz, Mary E. Lauer, Developing an Education Strategy for URL Officers, CNA, Alexandria, VA, March 2008, p. 55.

major stakeholders on the DoD organization chart would have the potential to overcome the organizational barriers that inhibit adaptive organizational performance and the development of adaptable personnel.

OSD can make a significant contribution to increasing military readiness by initiating a department-wide effort to insure that leaders at all levels in all the Services are prepared to contribute to adaptive performance. A coordinated and focused effort led by OSD will insure that scarce time, talent, and dollars—particularly associated with senior DoD management—are employed to address the most critical manpower, personnel, education, and training issues. At the same time, a coordinated effort will insure that resources are not wasted on redundant programs or programs with little potential to contribute to the department's greatest challenges. Finally, a coordinated effort will insure that all the Services, at all levels, benefit from the initiatives to develop adaptable leadership.

I. WHAT WILL BE THE ESSENTIAL ELEMENTS OF A COORDINATED EFFORT BY OSD, THE JOINT STAFF, THE SERVICES, AND DOD AGENCIES?

The goal of adaptability development strategies should be to establish an overall learning environment conducive to developing adaptable individuals, teams, and units at every stage of their careers and at every level of military organization. Ultimately and ideally, a persistent long range program to enhance adaptability throughout DoD will require a collaborative effort to determine what is most useful and effective. This will be an evolutionary process during which a succession of interventions, policies, and practices are developed in response to what is learned from earlier initiatives.

OSD can begin this process by serving as a catalyst for a DoD-wide effort to enhance leader development through strategies that prominently include the development of adaptability and its component skills. While ultimately the Joint Staff, Services, and DoD agencies will need to take ownership of enduring programs, OSD, through the department-wide leadership group discussed above, can coordinate the initial efforts to identify where changes in current manpower, personnel, education, and training practices and policies will contribute to an integrated DoD-wide approach to develop adaptable individuals. The recently published *Army Strategy* recognizes the rationale for just such a comprehensive approach:

Army training and leader development programs must prepare units and leaders to conduct Full Spectrum Operations across the five operational themes of

Peacetime Military Engagement, Limited Intervention Operations (LIO), Peace Operations, Irregular Warfare and Major Combat Operations...Soldiers, leaders and units must be trained and developed to become broad and agile enough to quickly adapt their core skills as needed to function anywhere along the spectrum of conflict...Adaptation must occur through training in units, the Generating Force, professional education, operational assignments and experiences, and self-development.²¹

Each of the Services is concerned with its own roles and missions. Each has its own peculiar challenges and its own requirements for adaptation. However, the ability of each Service to meet challenges and contribute to joint and combined operations would be enhanced by a coordinated effort to develop the meta-skill or meta-capability of adaptability.

In order to address the most fundamental aspects of adaptability development, the initial adaptability development strategies should seek to:

- Advance adaptability learning in all education and training venues
- Establish career patterns that foster development of adaptability skills
- Insure adaptive performance is recognized and rewarded
- Execute an ongoing research and development program aimed at improving the methods employed for developing adaptability

A brief outline suggesting areas of effort for such strategies is contained in Appendix A.

J. CONCLUSION

The salient issue for the military today is not just change, but the rapid pace of change. With no additional effort, the military will continue to adapt. But history has shown that with no additional effort the *rate* at which it adapts will be slow and costly.²² The military will be much more effective and much better prepared to respond in a timely manner to the challenges it faces if its people—including leaders at every level— become increasingly more adaptable. This should be recognized as a career-long process. Although becoming more adaptable will be an uneven process for both individuals and organizations, a committed and sustained effort will result, over time, in a greater capacity to respond effectively to unpredicted changes wrought by thinking and adapting

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²¹ U.S. Army, *The Army Strategy*, August 22, 2008, pp. 23-25.

²² Jim Lacey and LCOL Kevin Woods, "Adapt or Die," U.S. Naval Institute Proceedings, August 2007, pp. 16-20.

enemies. The former Director of the Defence Academy of the United Kingdom has addressed both the need to institutionalize adaptability and the long time horizon that leaders must maintain, particularly with regard to education, in their efforts to develop adaptability:

Although many of the challenges facing military professionals in post-modern warfare are similar to those facing them in modern warfare, some of them—in particular the intellectual and cultural challenges—are very different, requiring a different approach and mind-set. Armed forces, especially those whose primary focus is modern warfare, need not only to recognize this and adapt accordingly, but to institutionalize adaptability...they need to devote considerable attention to being 'learning organizations,' and ones that learn, adapt and anticipate faster than the opposition²³...It is important to recognize the purpose of... [education]...is not the purist one of pursuit of knowledge for its own sake, but of developing capacity for good judgment. Such education, therefore, has a training dimension in that it is preparing practitioners to exercise good judgment in their profession, but not just in their next job or deployment, but over the duration of their career. Thus, its payback should not be judged by the improvement to an individual's immediate performance, but by the value it adds to performance over the course of a career, and in the value added to the organization as a whole over a similar time span.²⁴

Adaptable individuals and adaptable teams, units, and organizations are essential to a military that hopes to respond effectively to the challenges it faces in a world characterized by uncertainty, unpredictability, complexity, thinking and adapting enemies, and increasingly more rapid change. While it is acknowledged that humans do, in fact, adapt over time, interventions to enhance adaptability have the potential to improve individual and organizational performance significantly. Such interventions can have an immediate impact on performance at the tactical level. However, it is likely that the greatest benefits of such improved performance will be realized, not in the short term, but in the strategic context over a period of many years.

Ultimately, adaptability is a function of individual aptitude, training and education, experience, and the culture of the organization in which individuals and units operate. Meaningful efforts to improve adaptability must address each of these factors and do so in a coordinated manner over an extended period of time. Adaptability itself is a complex issue. One body of research has revealed that the best indication of adaptability in individuals is a tolerance for ambiguity.²⁵ There are no short cuts to

John Kiszely, "Post-Modern Challenges for Modern Warriors," *The Shrivenham Papers*, Number 5, December 2007, p. 22.

²⁴ Ibid., p. 15.

²⁵ Grizogono, *The Science of Complex Adaptive Systems*.

developing adaptability—it is a career-long, evolutionary process. It requires the dedicated efforts of individuals and the support of the culture in which individuals and units operate.

To achieve the significant improvement in adaptable performance that appears possible and highly desirable, OSD should take the initiative to provide leadership in establishing a collaborative effort throughout DoD aimed specifically at enhancing or modifying department policies and practices that impact the development of adaptability. In doing so, OSD should encourage drawing on resources both within and outside the department that have the potential to aid it in structuring interventions and policies that will contribute to the evolution of more adaptable individuals, teams, and units. Its long-term goal should be organizations and institutions that are visibly committed to fostering adaptive performance.

Appendix A

SUGGESTED FIRST STEPS IN CREATING A HOLISTIC APPROACH TO ADAPTABILITY DEVELOPMENT THROUGHOUT DOD

Effective strategies within the Joint Staff, Services, and DoD agencies will necessarily be the product of a collaborative effort of senior leaders across the department who are committed to the initiative. The following are some suggested subjects that might reasonably be considered in drafting such strategies.

A. The Basics

- 1. Develop a specific working definition of adaptability that resonates with leaders across DoD. Identify skills and attributes associated with adaptability.
- 2. Identify the jobs that most require adaptability. Conduct a review of all officer communities, enlisted skill areas, and billet types to identify where adaptability learning initiatives will provide the greatest impact in terms of contributing to operational performance.
- 3. Insure that basic professional training in all Service communities provides a sound foundation for career development and the basis for adaptability learning. Today there are clear disparities between initial training programs in both the officer and enlisted communities.
- 4. Review the roles assigned to the war colleges and the Navy Post Graduate School and determine whether personnel assignment policies and practices match the assigned roles. Determine whether there is a need to redefine the roles of the schools, change personnel assignment practices, or both.

B. Education and Training General

- 1. Employ learning methodologies that promote development of adaptability.
- 2. Promote a mastery orientation approach to learning.
- 3. Adopt principles of Guided Experiential Learning in venues where it is appropriate.

- 4. Mine the science of learning.
- 5. Plan enhancements of or, where necessary, creation of programs designed to prepare professors, instructors, trainers, and mentors to teach, train, and foster adaptability skills.

C. Education

- 1. Develop or update education strategies that begin with entrance to the military academies and commencement of ROTC programs and continue throughout a career.
 - a) Recognize that intelligent individuals have different aptitudes and interests and that a broad range of talents are required to provide adaptive leadership throughout the military.
 - b) Make teaching students to think critically the principal aim of undergraduate education and the cultivation of critical thinking skills an integral part of all educational experiences
 - c) Emphasize communication skills, both oral and written.
 - d) Include a realistic plan for cross-cultural education, both the methodology for studying cultures and the substance of specific cultures. Recognize the commitment that must be made by any one individual to develop expertise in a given culture. Education of select individuals should include immersion in foreign cultures and should continue throughout a career.
 - e) Include a realistic plan for developing a breadth and depth of language talent within the Services, taking into account the length of time it takes to develop fluency in each language and the varying aptitudes that individuals have for learning languages.
- 2. Develop education programs for teaching complex adaptive decision-making.

D. Training

- 1. Identify existing training programs that would benefit from the inclusion of adaptability training principles.
- 2. Design "crucible experience" training scenarios to teach the meta-skill of adaptability in various Service and Joint venues.
- 3. Identify training commands where the addition of training specialists, educational specialists, or social scientists are required to design or modify training programs to include adaptability training.

- 4. Identify and conduct a review of selected adaptability-related training billets to verify that qualified personnel are assigned to the billets.
- 5. Review instructor training to insure that those providing adaptability-related training are adequately prepared.
- 6. Develop a Red Teaming capability across DoD. Identify Red Team best practices and foster Red Team concepts throughout DoD.

E. Career Development

- 1. Identify any ways in which laws such as DOPMA and Goldwater-Nichols affect, positively or negatively, development of adaptable leaders. Determine whether current laws support career patterns that will promote the development of adaptable leaders.
- 2. Seek to establish career patterns that will provide a variety of assignments aimed at broadening the experiences of individuals, rather than a succession of narrowly focused assignments.
- 3. Insure selection board precepts are written to encourage selection of officers who have demonstrated adaptive performance.

F. Manpower and Personnel

- 1. Design a billet allocation plan for the efficient employment of social scientists to conduct research with regard to adaptability learning, design adaptability training, and participate in the conduct of adaptability training.
- 2. Conduct a review of assignment practices and promotion policies to insure that qualified personnel are assigned to training and education billets and are rewarded appropriately for superior performance in those billets.

G. Research and Development

- 1. Establish a structured, programmatic research and development program, with four main research thrusts:
 - a) Design Studies--how best to teach and train adaptability and the components of adaptability
 - b) Transfer Studies--the effect of adaptability training on performance in the operational environment
 - c) Measurement Studies—development of metrics to measure adaptability, the effects of adaptability training, and the effectiveness of various interventions and adaptability training tools

- d) Organizational Studies—to determine whether the DoD culture and structure, including policies, promote or inhibit adaptability
- 2. Conduct ongoing research to determine where Technology-Based Training can be utilized to facilitate or enhance all training, including adaptability training. Include research to determine the practical limits of technology-based training.
- 3. Research differences between men and women with regard to adaptability and the implications for developing more adaptive teams.
- 4. Establish a research program to identify the skills, knowledge, and attributes (SKA) associated with team decision-making, teamwork, and team leadership, as well as the methodologies to train those SKAs.
- 5. Undertake a collaborative research effort with the Australian Army aimed at enhancing complex adaptive decision making.
- 6. Support programs to develop simulations, serious games, and technology-driven exercises that have a DoD focus.
- 7. Support research in the field of neuroscience aimed at improving cognitive performance and measuring the effectiveness of training interventions designed to enhance adaptability.
- 8. Develop Leader Development Games and Exercises and Leader Team Games and Exercises.
- 9. Develop affordable methods for conducting 360-degree evaluations or other diagnostics designed to increase individual self-awareness.

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Appendix C ACRONYMS

DoD Department of Defense

DOPMA Defense Officer Personnel Management Act

EOD Explosive Ordnance Disposal

IED improvised explosive device

POA&M plan of action and milestones

SKA skills, knowledge, and attributes

USD (P&R) Under Secretary of Defense (Personnel and Readiness)

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14. ABSTRACT

This paper emphasizes the need to increase adaptability at all levels of the military and suggests that a holistic and integrated approach involving training, education, and career development is the key to producing more adaptable individuals and, through them, more adaptable organizations and institutions that will foster and sustain adaptability as a valued meta-competency. The paper further suggests that OSD and the Joint Staff are best positioned to facilitate such a holistic approach and to serve as the catalyst for a collaborative effort on the part of senior Service leaders.

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